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FILE 'HCAPLUS' ENTERED AT 18:43:51 ON 13 MAR 2003

L5 1 S L4 1 cite

FILE 'USPATFULL' ENTERED AT 18:44:14 ON 13 MAR 2003

L6 1 S L4 1 patent (pub.)

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L5 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:90074 HCAPLUS
DOCUMENT NUMBER: 136:151440
TITLE: Preparation of novel peptides as NS3-serine protease inhibitors of hepatitis C virus
INVENTOR(S): Saksena, Anil K.; Girijavallabhan, Viyyoor Moopil; Lovey, Raymond G.; Jao, Edwin E.; Bennett, Frank; McCormick, Jinping; Wang, Haiyan; Pike, Russell E.; Bogen, Stephane L.; Liu, Yi-Tsung; Arasappan, Ashok; Parekh, Tejal; Pinto, Patrick A.; Njoroge, F. George; Ganguly, Ashit K.; Brunck, Terence K.; Kemp, Scott Jeffrey; Levy, Odile Esther; Lim-Wilby, Marguerita
PATENT ASSIGNEE(S): Schering Corporation, USA; Corvas International, Inc.
SOURCE: PCT Int. Appl., 197 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002008256	A2	20020131	WO 2001-US22826	20010719
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003036501	A1	20030220	US 2001-909062	20010719

PRIORITY APPLN. INFO.: US 2000-220109P P 20000721
OTHER SOURCE(S): MARPAT 136:151440
GI

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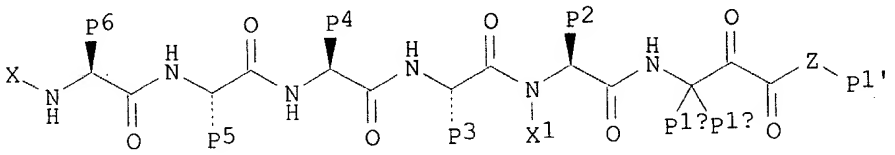

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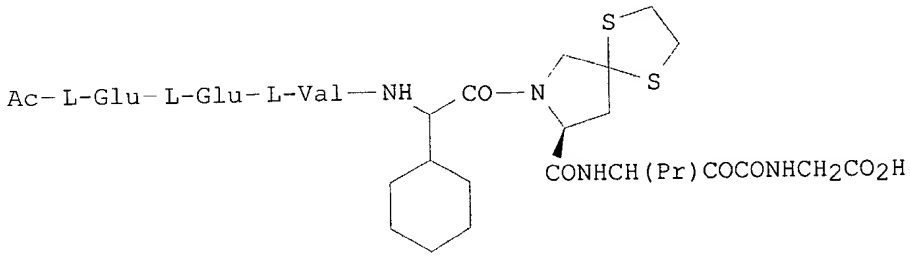


II

AB Novel peptides I [Z = O, NH or substituted imino; X = (un)substituted alkylsulfonyl, heterocyclylsulfonyl, heterocyclylalkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, alkylcarbonyl, heterocyclylcarbonyl, heterocyclylalkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, alkoxycarbonyl, heterocyclyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, alkyaminocarbonyl, heterocyclylaminocarbonyl, arylaminocarbonyl, or heteroarylaminocarbonyl; X1 = H, alkyl, arylmethyl; P1a, P1b, P2-P6 = H, (un)substituted alkyl, alkenyl, cycloalkyl, heterocyclyl, cycloalkylalkyl, heterocyclylalkyl, aryl, heteroaryl, arylalkyl, or heteroarylalkyl; P1a and P1b may optionally be joined to each other to form a spirocyclic or spiroheterocyclic ring contg. 0-6 oxygen, nitrogen, sulfur, or phosphorus atoms; P1' = H, (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, aryl, arylalkyl, heteroaryl, or heteroarylalkyl] having HCV protease inhibitory activity are disclosed. Thus, peptide II was prepd. via peptide coupling in soln. and showed Ki = 1-100 nM for inhibition of HCV protease.

IT **393520-91-7P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of novel peptides as NS3-serine protease inhibitors of hepatitis C virus)

=> d ibib abs hitrn 16

L6 ANSWER 1 OF 1 USPATFULL

ACCESSION NUMBER: 2003:51543 USPATFULL

TITLE: Novel peptides as NS3-serine protease inhibitors of hepatitis C virus

INVENTOR(S): Saksena, Anil K., Upper Montclair, NJ, UNITED STATES
Girijavallabhan, Viyyoor Moopil, Parsippany, NJ, UNITED STATES
Lovey, Raymond G., West Caldwell, NJ, UNITED STATES
Jao, Edwin E., Warren, NJ, UNITED STATES
Bennett, Frank, Piscataway, NJ, UNITED STATES
McCormick, Jinping L., Edison, NJ, UNITED STATES
Wang, Haiyan, Cranbury, NJ, UNITED STATES
Pike, Russell E., Stanhope, NJ, UNITED STATES
Bogen, Stephane L., Somerset, NJ, UNITED STATES
Liu, Yi-Tsung, Morris Township, NJ, UNITED STATES
Arasappan, Ashok, Bridgewater, NJ, UNITED STATES
Parekh, Tejal, Mountain View, CA, UNITED STATES
Pinto, Patrick A., Morris Plains, NJ, UNITED STATES
Njoroge, F. George, Warren, NJ, UNITED STATES
Ganguly, Ashit K., Upper Mountclair, NJ, UNITED STATES
Brunck, Terence K., Santa Fe, NM, UNITED STATES
Kemp, Scott Jeffrey, San Diego, CA, UNITED STATES
Levy, Odile Esther, San Diego, CA, UNITED STATES
Lim-Wilby, Marguerita, La Jolla, CA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003036501	A1	20030220	
APPLICATION INFO.:	US 2001-909062	A1	20010719	(9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2000-220109P	20000721	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SCHERING-PLOUGH CORPORATION, PATENT DEPARTMENT (K-6-1, 1990), 2000 GALLOPING HILL ROAD, KENILWORTH, NJ, 07033-0530

NUMBER OF CLAIMS: 54
EXEMPLARY CLAIM: 1
LINE COUNT: 3298
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention discloses novel peptide compounds which have HCV protease inhibitory activity as well as methods for preparing such compounds. In another embodiment, the invention discloses pharmaceutical compositions comprising such peptides as well as methods of using them to treat disorders associated with the HCV protease.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **393520-91-7P**
(prepn. of novel peptides as NS3-serine protease inhibitors of hepatitis C virus)

Specie

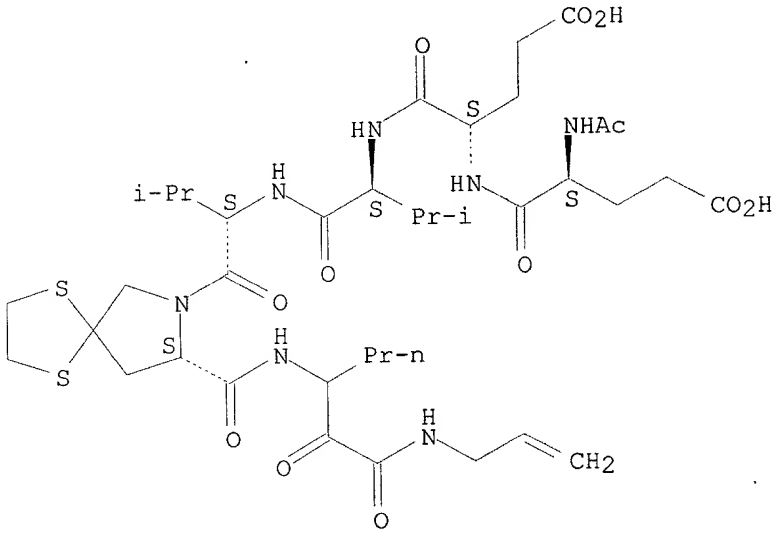
AUDET 09/909,062

=> d ide

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 393520-91-7 REGISTRY
CN 1,4-Dithia-7-azaspiro[4.4]nonane-8-carboxamide, N-acetyl-L-.alpha.-glutamyl-L-.alpha.-glutamyl-L-valyl-L-valyl-N-[1-[oxo(2-propenylamino)acetyl]butyl]-, (8S)- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF **C38 H59 N7 O12 S2**
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

cites from applicant

AUDET 09/909,062

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L3                  STR
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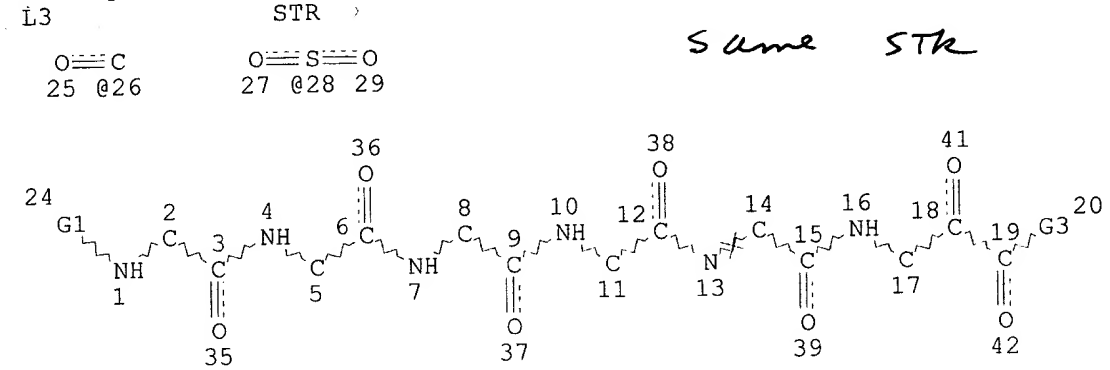
same STR

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VAR G3=O/N
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CONNECT IS X3  RC AT   8
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CONNECT IS X3  RC AT  14
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  33

STEREO ATTRIBUTES: NONE
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L12            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11 AND L6


=> d ibib abs 1-2
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          data.  (Default)
SIM ----- Structure IMage.
SAT ----- Structure ATtributes and map table if it contains data.
SCT ----- Structure Connection Table and map table if it contains
          data.
SDA ----- All Structure DAta (image, attributes, connection table and
          map table if it contains data).
NOS ----- NO Structure data.
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=> d ibib abs 1-2 l12

L12  ANSWER 1 OF 2  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2002:90074  HCAPLUS
DOCUMENT NUMBER:          136:151440
```

Bibliography only

TITLE: Preparation of novel peptides as NS3-serine protease inhibitors of hepatitis C virus

INVENTOR(S): **Saksena, Anil K.**; **Girijavallabhan, Viyyoor Moopil**; Lovey, Raymond G.; Jao, Edwin E.; Bennett, Frank; McCormick, Jinping; Wang, Haiyan; Pike, Russell E.; Bogen, Stephane L.; Liu, Yi-Tsung; Arasappan, Ashok; Parekh, Tejal; Pinto, Patrick A.; Njoroge, F. George; Ganguly, Ashit K.; Brunck, Terence K.; Kemp, Scott Jeffrey; Levy, Odile Esther; Lim-Wilby, Marguerita

PATENT ASSIGNEE(S): Schering Corporation, USA; Corvas International, Inc.

SOURCE: PCT Int. Appl., 197 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002008256	A2	20020131	WO 2001-US22826	20010719
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, MZ, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
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US 2003036501	A1	20030220	US 2001-909062	20010719

PRIORITY APPLN. INFO.: US 2000-220109P P 20000721

OTHER SOURCE(S): MARPAT 136:151440

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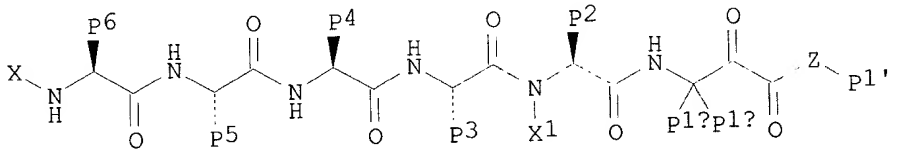

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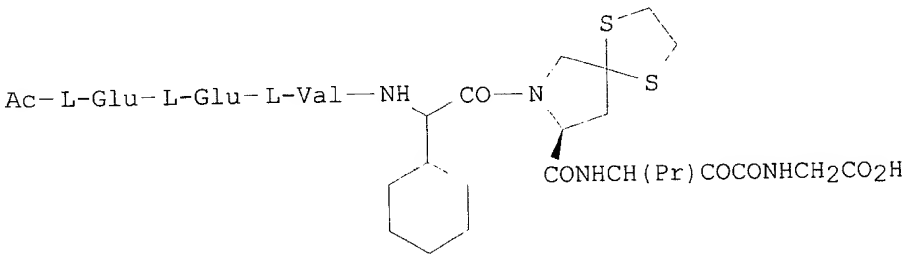

II

AB Novel peptides I [Z = O, NH or substituted imino; X = (un)substituted alkylsulfonyl, heterocyclylsulfonyl, heterocyclylalkylsulfonyl,

arylsulfonyl, heteroarylsulfonyl, alkylcarbonyl, heterocyclylcarbonyl, heterocyclylalkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, alkoxycarbonyl, heterocyclyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, alkyaminocarbonyl, heterocyclylaminocarbonyl, arylaminocarbonyl, or heteroarylaminocarbonyl; X1 = H, alkyl, arylmethyl; P1a, P1b, P2-P6 = H, (un)substituted alkyl, alkenyl, cycloalkyl, heterocyclyl, cycloalkylalkyl, heterocyclylalkyl, aryl, heteroaryl, arylalkyl, or heteroarylalkyl; P1a and P1b may optionally be joined to each other to form a spirocyclic or spiroheterocyclic ring contg. 0-6 oxygen, nitrogen, sulfur, or phosphorus atoms; P1' = H, (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, aryl, arylalkyl, heteroaryl, or heteroarylalkyl] having HCV protease inhibitory activity are disclosed. Thus, peptide II was prepd. via peptide coupling in soln. and showed Ki = 1-100 nM for inhibition of HCV protease.

L12 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:90018 HCAPLUS
DOCUMENT NUMBER: 136:135031
TITLE: Preparation of novel imidazolidinones as NS3-serine protease inhibitors of hepatitis C virus
INVENTOR(S): Arasappan, Ashok; Parekh, Tejal; Njoroge, F. George; **Girijavallabhan, Viyyoor Moopil**; Ganguily, Ashit K.
PATENT ASSIGNEE(S): Schering Corporation, USA
SOURCE: PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002008198	A2	20020131	WO 2001-US22828	20010719
WO 2002008198	A3	20020718		

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US 2002102235	A1	20020801	US 2001-909077	20010719

PRIORITY APPLN. INFO.: US 2000-220110P P 20000721
OTHER SOURCE(S): MARPAT 136:135031
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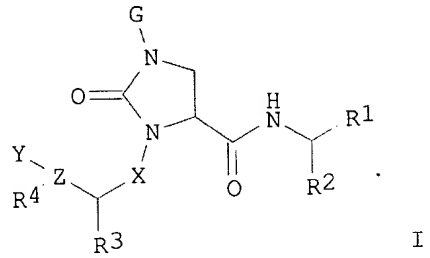

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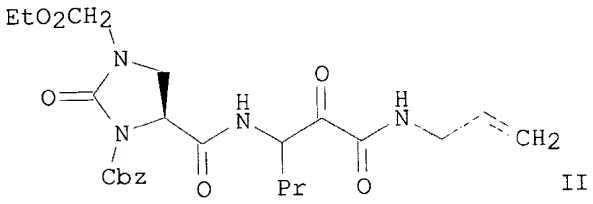

II

AB Novel imidazolidinones I [R1 = COR5 (R5 = H, OH, alkoxy, amino, CF3, etc.) or B(OR)3 (R = H, alkyl, alkyl, alkenyl, cycloalkyl, heterocycloalkyl, alkoxy, aryloxy, alkylthio, arylthio, amino, amido, ester, carboxylic acid, etc.); Z = O, N or CH; X = CO, CS or alkylene; G = H, (un)substituted alkyl, aryl, heteroalkyl, heteroaryl, alkylaryl or alkylheteroaryl; R2, R3 = any group defined for R; R4 = null, H, alkyl, aryl; Y = H, (un)substituted alkyl, aryl, heteroalkyl, heteroaryl, cycloalkyl, arylalkyl, heteroarylalkyl, etc.], including enantiomers, stereoisomers, rotamers and tautomers, having HCV protease inhibitory activity are disclosed. Thus, compd. II (Cbz = benzyloxycarbonyl) was prepd. via peptide coupling reaction of H2NCHPrCH(OH)CONHCH2CH:CH2.HCl (prepn. given), followed by Dess-Martin oxidn. of the hydroxy group. II showed Ki > 50,001 nM for inhibition of HCV protease.

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L12 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS

FIELD	COUNT
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IT	184

L12 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS

FIELD	COUNT
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IT	11

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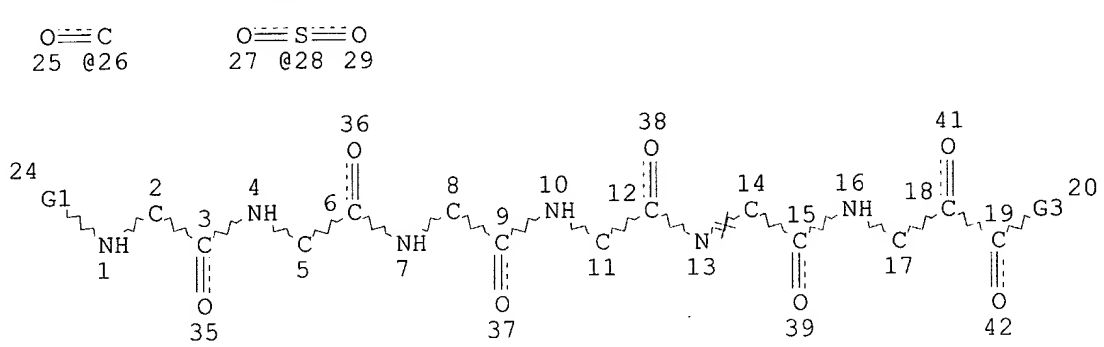

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE
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4/13 R#1 1st Ref. No prefect hit

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L20 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:90069 HCAPLUS
DN 136:145200
TI Novel peptides as ns3-serine protease inhibitors of hepatitis C virus
IN Lim-Wilby, Marguerita; Levy, Odile E.; Brunck, Terrence K.
PA Corvas International, Inc., USA
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DT Patent
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	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002008251	A2	20020131	WO 2001-US23169	20010719
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PRAI	US 2000-220101P	P	20000721		

OS MARPAT 136:145200